

Smart Inverter Working Group – Phase 3 Workshop

September 25, 2015 | 10:00 – 4:00

California Public Utilities Commission
505 Van Ness Avenue, **Auditorium**
(Corner of Van Ness Avenue and McAllister Street)
San Francisco, CA 94102

This workshop will be available in real-time via **video webcast** at:

www.californiaadmin.com/cpuc.shtml

To participate via **phone**, the call-in information is as follows:

Conference phone line: (866) 830-4003

Participant code: 986 9619

Objective – to solidify the scope of the SIWG Phase 3, via the following tasks:

1. To create a set of use cases or scenarios in which advanced inverter functionality can be leveraged to provide grid services for operations and planning
2. To identify the SIWG Phase 1 and Phase 3 functions that can be utilized to provide these grid services, including Phase 2 communication requirements needed to operationalize these grid services.
3. To further categorize and refine the list of additional inverter functions to be developed by the SIWG in Phase 3

Agenda

10:00 – 10:45	<p>Introduction and context from Marc Monbouquette and Frances Cleveland</p> <p>Smart inverters play a critical role in the operation and planning of the next-generation grid. Here we'll review the advanced inverter functionality developed in Phases 1 and 2, the related CPUC proceedings and CAISO initiatives that are examining the policy and market frameworks in which inverter-provided grid services will be operationalized, and the goal to use Phase 3 of the SIWG to develop additional inverter functionality and the foundational technical requirements needed to enable the provision of grid services.</p> <p>In addition, draft Use Cases will be presented that could form the basis for compensation models related to the DRP and IDSR efforts.</p>
10:45 – 11:30	<p>Presentations on inverter-based grid service use cases from John Berdner (Enphase), Ryan Hanley (SolarCity), and Tom Bialek (SDG&E)</p> <p>What grid services (Use Cases) can smart inverters provide, and in what context? We'll hear perspectives from Enphase, SolarCity, and SDG&E on the how they envision deploying inverter-connected DERs for operations in a future distribution marketplace, wholesale dispatches, and system planning purposes.</p>
11:30 – 11:45	Break

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11:45 – 12:30	Group-Wide Discussion on possible Use Cases or scenarios in which advanced inverter functionality can be leveraged for operations or planning purposes, based on Frances' draft list of Use Cases and the manufacturer, vendor, and IOU perspectives presented above. Use cases can focus on near- and longer-term possibilities, value to either the distribution or bulk power system, the outcomes of related CPUC proceedings and CAISO initiatives, etc.
12:30 – 1:30	Lunch
1:30 – 2:00	Presentations on communications and transactional protocols from Art Anderson (PG&E), Ed Cazalet (TeMix), and Venki Ramachandran (AutoGrid/OpenADR Alliance) Which protocols or market interaction models could be called on to operationalize the provision of grid services, based on the Use Cases identified in the last session? Here, we'll review the IOUs' progress in implementing IEEE 2030.5 for the use cases identified in Phase 2, and hear presentations on TeMix/OASIS and OpenADR and learn about the possible regulatory and market frameworks these platforms can support.
2:00 – 2:15	Group-Wide Discussion to discuss basic "transactional primitives" that could be utilized in communicating pricing and delivery information via one of the compensation models discussed above. Even though we don't know what the distribution marketplace of the future will look like, what are some of the basic ordering or transactional primitives that could be developed for the grid service Use Cases we're discussing today?
2:15 – 2:30	Break
2:30 – 3:30	Panel Discussion moderated by Frances Cleveland, with perspectives from IOUs, manufacturers, and vendors to refine the list of additional inverter functionality to be developed by the SIWG Phase 3. What should be required by Rule 21? Which functions should be included in the Phase 3 document on an optional basis?
3:30 – 4:00	Wrap-Up. How has today's discussion informed the scope of the SIWG Phase 3? How should the SIWG Phase 3 proceed to tackle the scoped items?